What is claimed is:

1. A method of producing a metal halide arc tube comprising the steps of providing an arc tube body having first and second ends; inserting a first electrode assembly and a second electrode assembly into the arc tube body; creating first, second, third and fourth seals in the arc tube body, each seal being formed by heating the arc tube body at a desired location while maintaining a gas pressure inside the arc tube body lower than the pressure outside the arc tube body; removing a first portion of the arc tube body, the first portion comprising the first end and one of the seals; and removing a second portion of the arc tube body, the second portion comprising the second end and another of the seals.

2. A method according to claim 1, wherein the first seal is formed before the second, third, and fourth seals, the first seal being formed between a central portion of the first electrode assembly and the first end.

3. A method according to claim 2, further comprising the step of maintaining a reduced gas pressure inside the arc tube body while forming the first seal, said reduced gas pressure being maintained by blanking off the second end and evacuating gas from the first end.

4. A method according to claim 2, further comprising the step of positioning the first electrode assembly between the first end and an arc chamber, said arc chamber being essentially centrally located in said arc tube body.

5. A method according to claim 2, wherein the second seal is formed before the third and fourth seals, the second seal being formed so as to encompass a central portion of the first electrode assembly.

6. A method according to claim 5, further comprising the step of positioning the first electrode assembly between the first

end and an arc chamber, said arc chamber being essentially centrally located in said arc tube body.

7. A method according to claim 5, further comprising the step of maintaining a reduced gas pressure inside the arc tube body while forming the second seal by evacuating gas from the second end.

8. A method according to claim 5, wherein the third seal is formed before the fourth seal is formed, the third seal being formed between a central portion of the second electrode and the second end.

9. A method according to claim 8, further comprising the step of positioning the second electrode between the first electrode and the second end.

10. A method according to claim 8, further comprising the step of forming the fourth seal so as to encompass a central portion of the second electrode assembly.

11. A method according to claim 1, comprising the further step of placing a dose of mercury and a dose of halide compound in the tube after forming the second seal.

12. A method according to claim 11, wherein the doses of mercury and of halide compound are placed in the arc tube body after the first and second electrode assemblies are placed in the arc tube body.

13. A method according to claim 12, wherein the doses of mercury and of halide compound are placed in the arc tube body without substantially changing the position of either electrode assembly.

14. A method according to claim 1, wherein a reduced gas pressure in the arc tube body is maintained while forming the third seal by introduction of a fill gas at a pressure of 20-500 torr.

15. A method according to claim 1, wherein the arc tube body is a quartz arc tube body.

16. A method of producing a metal halide arc tube comprising the steps of providing a quartz tube comprising a bulbous section, a first arm and a second arm, each arm extending from the bulbous section, and each arm having an outer end; inserting a first electrode assembly and a second electrode assembly into the quartz tube so that the electrode assemblies are a predetermined distance apart from each other and one electrode assembly is disposed in each arm, each electrode assembly comprising a foil, a spring clip attached to the foil and extending away from the bulbous section, a shank attached to the foil and extending toward the bulbous section, and a coil attached to the shank; reducing the gas pressure in the quartz tube by evacuating gas from the first arm's outer end while blanking off the second arm's outer end; creating a first seal in the first arm of the quartz tube between the electrode assembly disposed in the first arm and the outer end of the first arm by rotating and heating the quartz tube at the desired location until the quartz tube melts and collapses; then evacuating gas from the second arm's outer end to reduce pressure in the quartz tube between the first seal and the second arm's outer end; creating a second seal in the first arm at the location of the foil of the electrode assembly in the first arm by rotating and heating the quartz tube until the quartz tube melts and collapses on the foil; placing a dose of mercury and a dose of halide compound into the bulbous section; pressurizing the quartz tube between the second seal and the second arm's outer end with a fill gas to a pressure of 20-500 torr; creating a third seal in the second arm of the quartz tube between the electrode assembly disposed in the

second arm and the outer end of the second arm by rotating and heating the quartz tube at the desired location until the quartz tube melts and collapses; creating a fourth seal in the second arm of the quartz tube at the location of the foil by rotating and heating the quartz tube at the desired location until the quartz tube melts and collapses; applying an external coating to the quartz tube; removing a section of each arm between the outer end of the arm and the foil; and trimming each spring clip to a desired length.